



National Weather Service

Storm Data and Unusual Weather Phenomena



January 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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CONNECTICUT, Northeast

CTZ002	Hartford	03	1320EST	0	0	Record Warmth
The mean temperature for the day at Bradley International Airport in Windsor Locks was 46 degrees. This tied the record warmest mean temperature for the date set in 1913.						
CTZ002	Hartford	09	2200EST	0	0	Flood
The combination of a significant rain event and melting snow caused by mild temperatures resulted in a minor river flood episode along the Connecticut River. At Hartford, flood stage of 16 feet was reached at 10 PM on January 9th and was followed by a crest of 19.2 feet at 6 PM on the 11th. The river dropped below flood stage at 10 PM on the 12th.						
CTZ002>004	Hartford - Tolland - Windham	15	1600EST	0	0	Ice Storm
Low pressure over the southeastern United States moved northeast to a position off the Mid-Atlantic coast. A moderate ice storm occurred across northern Connecticut with ice accretions averaging just under one-half inch. One-half inch of accretion was reported in Woodstock in Windham County. Power outages affected 86,00 customers in the northern part of the state. The hardest hit town was New Britain. Schools were closed throughout the area and flights were delayed leaving Bradley International Airport in Windsor Locks. State police reported around 200 accidents on roadways throughout the area.						

MASSACHUSETTS, Central and East

MAZ016	Eastern Norfolk	03	1320EST	0	0	Record Warmth
The temperature soared to a balmy maximum of 59 degrees at Blue Hill Observatory in Milton, setting a new record for the date. The old record was 58 degrees set in 1930.						
MAZ004>005	Northern Worcester - Western Middlesex	09	0100EST 1800EST	0	0	20K Ice Storm
Spotty areas of freezing rain fell in parts of northern Worcester County and extreme northwest Middlesex County. In a few places, there was severe icing. The icing was confined to specific elevations. A state of emergency was declared in the town of Paxton, where ice accretion brought down many tree limbs and wires causing road closures and power outages. Similar problems were reported in Leicester, Ashby, and Westminster. Power outages affected several hundred customers. There were scattered areas of icing in other towns, but no damage was reported.						
MAZ003-008	Eastern Franklin - Western Hampshire	09	1200EST	0	0	Flood
The combination of a significant rain event and melting snow caused by mild temperatures resulted in a minor river flood episode along the Connecticut River. At Montague City, the Connecticut River reached flood stage of 28 feet at noon on January 9th, crested at 28.82 feet at 8 PM the same day, then dropped below flood stage at 3 AM on January 10th. At Northampton, the Connecticut River reached flood stage of 112.0 feet at 6 PM on January 9th, crested at 113.0 feet at 7 AM on the 10th, then dropped below flood stage at 11 AM on January 11th.						
MAZ011	Eastern Hampden	15	1800EST	0	0	Ice Storm
16 1200EST						



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					Killed	Injured	Property Crops	

MASSACHUSETTS, Central and East

MAZ002>008-012>017 **Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Southern Worcester - Western Norfolk - Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol**

	15	2100EST			0	0		Heavy Snow
	16	1200EST						

Low pressure moved from the southeastern United States to a position off the Mid-Atlantic coast. Heavy snow and a pocket of freezing rain affected much of the state. A moderate ice storm occurred across much of Hampden County. The maximum ice accretion reported was 5/8 inch in Agawam. A few scattered power outages were reported. Heavy snow occurred across Massachusetts from Norfolk, Suffolk, Essex, and Middlesex Counties in the Greater Boston area west and northwest across Worcester and Franklin Counties. Maximum snowfall totals reached 10 inches in parts of Middlesex and Worcester Counties. Some totals included: Princeton, 10 inches; Sudbury and Clinton, 9.5 inches; Shrewsbury, 9.0 inches; Worcester, 8.8 inches; Westboro, 8.4 inches; Rowe, Shelburne, and Bernardston, 8.0 inches; and Blue Hill, in Milton, 7.0 inches. Boston's Logan International Airport had 3.5 inches. This storm resulted in many school closings and a difficult Friday morning commute and poor driving conditions in the heavy snow and freezing rain areas.

MAZ002>005-008>010 **Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Hampshire - Western Hampden - Eastern Hampshire**

	23	0900EST			0	0		Heavy Snow
		2100EST						

Bristol County
Countywide

23	1500EST			0	0		Heavy Rain
24	0600EST						

Middlesex County
Countywide

23	1500EST			0	0		Heavy Rain
24	0600EST						

Plymouth County
Countywide

23	1500EST			0	0		Heavy Rain
24	0600EST						

Worcester County
Countywide

23	1500EST			0	0		Heavy Rain
24	0600EST						

Hampden County
Countywide

23	1800EST			0	0		Urban/Sml Stream Fld
24	0900EST						

Worcester County
Countywide

23	1800EST			0	0		Urban/Sml Stream Fld
24	0900EST						

Snow accumulated to over 6 inches in parts of central and western Massachusetts before changing to sleet, freezing rain, and finally rain. State police responded to numerous reports of spinouts on Interstates 190, 290, and 495 as the combination of snow changing to freezing rain created very hazardous driving conditions. Some snowfall totals included: Granville, 7.5 inches; Ashburnham, 7.2 inches; Goshen, 6.5 inches; Huntington, North Amherst, and Lowell, all 6.0 inches. After a change to heavy rain, considerable urban and lowland flooding was reported, especially south of the Mass. Turnpike. Lowland flooding was reported along a small stream in Grafton, in Worcester County. Heavy rainfall occurred across central and eastern Massachusetts. Precipitation totals of one and one-half to three inches occurred, with a few places exceeding three inches. Some rainfall totals included: Plymouth, 3.54 inches; New Bedford, 3.42 inches; Foxboro, 3.10 inches; Maynard, 2.73 inches; West Medway, 2.67 inches; Natick, 2.58 inches; Taunton, 2.48 inches; and Worcester, 2.20 inches.

MAZ019>024 **Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket**

28	1700EST			0	0		Strong Winds
29	1200EST						



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MASSACHUSETTS, Central and East

MAZ019-023>024

Eastern Plymouth - Dukes - Nantucket

29	1000EST				0	0	200K		Coastal Flood
	1400EST								

A large and powerful slow moving ocean storm passing across the Atlantic Ocean to the south of Cape Cod brought strong southeast winds to southeastern Massachusetts, with high tides and beach erosion affecting north and east facing coastal areas. The strong northeast winds before high tide piled water toward shore and combined with astronomically high tides to produce coastal flooding. Some peak wind gusts reported late on January 28th included: Buzzards Bay Buoy, 52 mph at 5 PM; Boston Buoy, 45 mph at 9 PM and midnight. Some peak wind gusts reported during the morning of January 29th included: Nantucket, 53 mph at 1:15 AM; Bourne, 52 mph at 2 AM; Dennis, 46 mph; and Martha's Vineyard, 45 mph.

Coastal flooding was reported along the coast south of Boston at Hull and Scituate, where shore roads were closed because crashing waves sent rocks and other debris over sea walls. The tide in Scituate was reported to be about 3 feet above normal. An 80-foot section of the most vulnerable sea wall in Scituate collapsed in the aftermath of the storm, on the tide following the noon high tide on January 29th. This left a section of one coastal road completely (but temporarily) unprotected. Farther south along the coast of Marshfield, in the Brant Rock section, the surf washed over cars parked near a pier and flooded several streets. On Cape Cod, three dozen dolphins died after being stranded on Cape beaches by the high tide. On Nantucket Island, Pebble Beach parking lot was relocated due to erosion and high tide was reported to be 2.5 feet above normal. On Martha's Vineyard, flooding was reported at Edgartown and at several other points along the coast. In the Boston area, high tides forced the closing of several coastal roads to the north and south of the city. Roads were closed for about one hour around the time of the noon high tide. However, in Winthrop, one coastal causeway was closed for two hours.

NEW HAMPSHIRE, Southern

NHZ011>012

Cheshire - Hillsborough

07	0800EST				0	0	1M		Ice Storm
10	0800EST								

MAJOR ICE STORM...AND PRESIDENTIAL DISASTER DECLARATION.

A large low pressure system located in the Tennessee Valley, with its warm front extending northeast to Long Island, New York, set the stage for a prolonged period of freezing rain in northern New England. A moisture-laden airmass overran a cold Canadian airmass which remained in place during moderate to heavy rainfall, producing a massive ice storm.

The major and prolonged icing event affected a number of towns in Cheshire and Hillsborough Counties in southern New Hampshire, starting on Wednesday, January 7th and continuing until Saturday, January 10th. Elevations ranging from roughly 1,100 feet to 2,500 feet were most severely impacted. Radial ice accretions reached one to two inches by late Friday, January 9th and early Saturday, January 10th. Thousands of trees and power lines were felled, with some landing on houses and others crashing through windshields of moving vehicles. This icing event was most unusual for the fact that damage occurred only in specific parts of the same town. For example, in Marlow (Cheshire County), the hardest hit areas were on the north and east facing sections of the town including the bordering towns of Lempster, Washington, and Stoddard. A maximum ice accretion radius of 1.39 inches was measured on Pitcher Mountain in Stoddard on Sunday, January 11th, where there had been very little melting up until that time. The circumference of ice on a small branch was 8.75 inches. In Harrisville, at an elevation of about 1,400 feet, the north-facing corridor to the northwest of the center of town was hit the hardest. A tree fell on a fire truck on Friday evening as it was responding to a fire; trees and limbs were down on houses with broken windows reported. The radial ice accretion there reached two inches on Friday. In the neighboring town of Marlborough, located to the southwest, there were no problems reported.

In extreme northwest Hillsborough County, in the town of Windsor, power failed early Thursday morning, January 8th, and was not restored until Sunday, January 11th. Ice was reported one-half to one inch thick on trees. About 10 miles to the east, the



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NEW HAMPSHIRE, Southern

neighboring town of Hillsborough reported on very minor damage. Also, in Hillsborough County, in the town of Weare, the southeast part of town remained ice-free while the northwest part had icing. Radial ice accretion was reported at about one inch (ice on a wire was two inches in diameter). There is an elevation difference of only 100 feet in the town.

Quite remarkably, there were few injuries from this icing event. Statewide, power outages affected 67,000 electric customers. A utility power lineman died of a heart attack while clearing tree limbs from power lines in Washington. Power remained out an average of several days, but the more isolated areas were without power for a week. Damage to forests was very extensive statewide, but also in Cheshire and Hillsborough Counties, where it could only be compared to the effects of the Hurricane of 1938. The fallen trees will likely result in increased fire danger within two years. Damage from the ice storm in Cheshire and Hillsborough Counties is estimated to be around 1 million dollars, but the damage figure was much higher in northern portions of New Hampshire. Cheshire and Hillsborough Counties both were included in a presidential disaster declaration.

NHZ011>012

Cheshire - Hillsborough

15	2100EST	0	0				Heavy Snow
16	1200EST						

Low pressure over the southeastern United States moved northeast to a position off the Mid-Atlantic coast. Heavy snowfall of 6 to 7 inches fell across much of Cheshire and Hillsborough Counties. Some specific amounts included: Weare, 6.5 inches; Francestown, 6.0 inches; and Jaffrey, 6.0 inches. No particular problems resulted from this storm.

NHZ011>012

Cheshire - Hillsborough

23	0900EST	0	0				Heavy Snow
	2100EST						

NHZ012

Hillsborough

23	2100EST	0	0	10K		Ice Storm
24	1200EST					

Heavy wet snow fell across Cheshire and Hillsborough Counties with amounts averaging between 6 and 8 inches. The precipitation changed to sleet and then freezing rain, causing an ice storm in much of Hillsborough County. The maximum snowfall occurred at Francestown with a total of 10 inches. Some other totals included: Westmoreland, 8 inches; Swanzy and Weare, 7.5 inches; Jaffrey, Walpole, and Peterborough, 7 inches; Temple, Hillsborough, and Wilton, 6 inches. The heavy wet snowfall caused a rash of skidding and roll-over accidents, especially during the Friday evening rush hour on January 23rd. In Manchester alone, there were ten accidents between 3 PM and 8 PM. Power outages affected as many as 31,000 households across the state of New Hampshire. In the Milford area and surrounding towns, as many as 3,100 electric customers lost power as ice-laden trees knocked down wires and poles.

RHODE ISLAND

RIZ004

Eastern Kent

03	1354EST	0	0			Record Warmth
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The maximum temperature at T.F. Green Airport in Warwick reached a balmy, record-setting 62 degrees. The previous record was 58 degrees set on this date in 1913.

Providence County

Cranston to North Providence

24	0700EST	0	0			Flood
	1500EST					

In Cranston, the Pocasset River overflowed its banks, flooding a local road with 2 feet of water between 7:00 AM and 9:00 AM on January 24th. Later, between 1:00 PM and 3:00 PM, flooding was reported along the Woonasquatucket River in North Providence. There were no reports of property damage. The flooding was in response to heavy rainfall which occurred throughout Providence County. Total 24-hour reports included 3.50 inches of rain at Clayville and 3.61 inches in downtown Providence. As much as 3 inches fell during a 12-hour period.